The Physical Basis of Brain-Work.

By Woods Hutchinson. See page 297.

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EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

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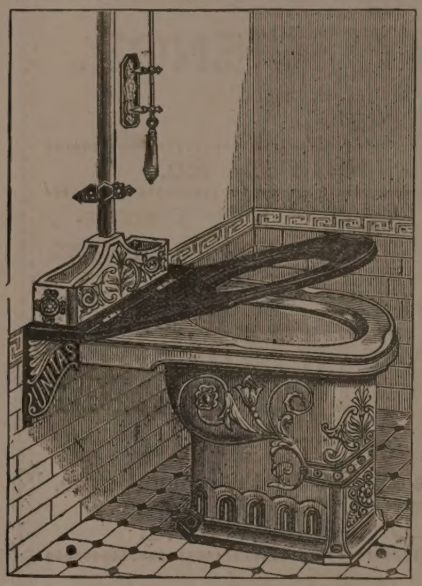

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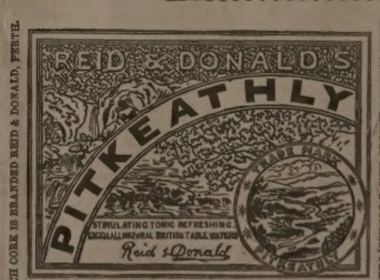
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HEALTH

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, AUGUST* 10, 1888.

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Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

LOVERS of animals will read a statement made in the columns of the *American Naturalist* for May with much interest. In the Zoological Collection connected with the National Museum at Washington there is a fine male grivet monkey *(Cercopithecus erythræa)*, who shares a large cage with four opossums. To human beings he shows himself anything but amiable, but "he takes kindly to his strange companions, and they have been the best friends from the first." The attention of the attendant was lately drawn to the cage by the excitement of a crowd in front of it, and on going to ascertain the cause he was surprised to see the monkey seated in the middle of the cage with one of the opossums lying quietly on her back on his lap, and her head under his arm. "The monkey had just discovered the marsupial pouch of the opossum, and was diligently investigating it.

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"HAD he not been a close observer it certainly would have remained unseen, for it was so tightly closed as to be perfectly invisible in its normal condition. The monkey carefully lifted the outer wall of the pouch and peered into the cavity. Then he reached in with his hand, felt about for a moment, and to the astonishment of everybody took out a tiny young opossum, about two inches long, hairless, blind, and very helpless, but alive and kicking. Jock held it up to the light, where he could get a good view of it, scrutinized it with the air of a *savant*, and presently returned it to the pouch very carefully. After replacing it he looked into the pouch again, and presently drew out another for examination, which he looked at with solemn interest, smelt it, and then carefully put it back. It was thus it became known to the attendants that the old female opossum had the young ones, which had previously been looked for in vain."

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SOME time ago an English resident at Canton, Mr. Pitman, bought a curious monstrosity—a sow with six legs. The front part of the body is simple, that is, the animal has one head, one thorax, and two front legs. Behind, all the organs are double. M. Bézaure, the French Consul at Canton, persuaded Mr. Pitman to let him have this strange creature for the Paris Museum of Natural History, where it may now be seen. It is white with great black spots, and appears to be in perfect health. An account of it, by M. Charles Brongniart, of the Museum of Natural History, appears in the current number of *La Nature*. The separation of the two trunks seems to begin after the dorsal vertebræ (or those of the back region). The animal is so fat that this point, however, cannot be precisely determined.

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I AM glad to notice that the topic of calisthenic exercises for girls is again coming to the front. A medical contemporary wisely says that more general interest ought to be felt in the importance of physical training for girls. It is not enough that their mental powers should be trained, the general laws of hygiene obeyed, and their dress arranged so as not to be harmful. It is also necessary that scientific care should be used in aiding the regular and systematic development of their bodies. Scientific calisthenics should moreover have an aim beyond this, in exercising and training the nerve-centres. The work of the drill-sergeant may suffice for getting up the muscles, but in endeavouring to train the brain by use of calisthenics, it is necessary that the teacher should produce accurate, harmonious, and graceful movements, independent of the amount of muscular exertion.

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LATELY the Princess of Wales took part in the Centenary of the Royal Masonic School for Girls, as

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celebrated at the Albert Hall, when a striking feature of the ceremony was the performance of some beautiful calisthenic exercises by the girls, with free movements, marching, and drill. Calisthenic exercises, when conducted on scientific principles, are of great value in regulating the nerve-centres; well co-ordinated series of movements imitated from the teacher, or produced to the word of command, tend to produce a well-knit nerve, and muscular system responding with ease and gracefulness to impressions received through the eye and the ear.

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The tendency to awkwardness of postures, and ill-balanced positions of the head and spine, with excess of movement, is often pronounced in growing girls, especially those of hysterical temperament; such conditions may be checked and brought under control through the eye and ear. Quickness of brain action, and of the interaction of the senses and the hands, may be cultivated by exercises with balls. There is another advantage in such exercises, as the ball is thrown or caught by the child the eyes follow the moving object as it recedes or advances towards her, and thus the power of accommodating the vision is brought into play.

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In young and delicate girls great care is necessary in using such exercises as throw great strain upon special groups of muscles, and in the use of exercises designed to regulate brain action fatigue should be carefully avoided, and throughout the lesson the signs of weakness and exhaustion should be carefully looked for, so that the strain may not be injuriously prolonged. To conduct such exercises and training with success, especially in weakly children, requires special training and skill in the teacher. These are wise remarks and should be laid to heart by all interested in the physical training of the young.

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I observe that at a late meeting of an Italian medical society, a Dr. S. Ottolenghi described the results of researches he had made on the sense of smell in criminals. He maintained that the olfactory sense would be better developed in them than in ordinary law-abiding people, possibly because the former are, or ought to be, nearer to the primitive savage type, in which, as is well known, the sight and hearing are far keener than in civilized men. Dr. Ottolenghi's experiments, says the report on his paper, were made with watery solutions of essence of cloves of various degrees of concentrative power, 1 in 50,000 to 1 in 100.

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Twelve phials, each containing 150 cubic centimètres of the test-liquid, were used. Full allowance was made for the personal equation, and every precaution was taken to exclude other sources of fallacy. The sense of smell was tested in 80 criminals (50 men and 30 women) and in 50 non-criminals (30 men and 20 women), with the following results. It was found to be distinctly less developed in the criminals than in the others; it was rather less keen in the women than in the men, and decidedly duller in the criminal than in the non-criminal women.

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M. Armand Gautier has been directing attention to a liquid sold in Paris for polishing copper. This, he states, is a concentrated nitrate of mercury as poisonous as corrosive sublimate. The liquid is used for polishing cooking utensils, and is thus introduced into food. He thought measures should be taken to prevent the sale of this dangerous liquid, and that the public should be warned by the publication of the discussion at the meeting.

Original Essays

"Life is not to live, but to be well."—*Martial.*

OFFAL EATERS.

By Dr. W. Curran.

"In the lowest form of animal life the sentient creature is, says Mr. H. Mayheu ("German Life and Manners," Lond. 1865, p. 80), a mere stomach, and the highest point of the animal organism very often remains at that point also. Moreover, cannibalism—which is regarded as the most savage type of human existence—is mainly a gastronomic test as to the refinement of the country in which it prevails; and the Samoiedes are merely judged by ethnologists to be but a few degrees above the Carnivora, not only from the inordinate capacities of their stomachs, but from the shocking coarseness of their food. Hence the modes of eating and drinking—the things on which the people of a country feed, as well as the manner of their feeding—appear to us to be fair enough criteria as to the delicacy and refinement of the race." Taking this test as our guide, we must endeavour to see whether there are offal eaters as contradistinguished from foul feeders, and if so, what are the distinctive features or peculiarities of the former. It is not, I confess, easy to draw the line, or say where mere foulness ends and actual "offalism"—if I may coin a phrase—begins; but our readers will not, we opine, have much difficulty in the matter, and, after all, the question as to how either or both practices bear on health is the question that chiefly concerns us here.

"The offal of animals consists," says Dr. E. Smith ("Foods," p. 75), "of the skin, feet, tail, horns, head, and tongue, the lungs, liver, spleen, omentum, pancreas, heart, intestines," &c., and he estimates this "offal" at, generally speaking, one third of the weight of the animal to which it belongs. But this is not the sense in which I would view this practice. Neither are these the substances I would, as a rule, include in the offal eater's menu. I would rather refer to the use, the habitual or preferential use, of those articles we discard as unfit for use, or that we classify under the head of garbage. It is not always the very lowest savage that utilizes these. I have already mentioned an illustration in point in connection with a corps with which I once served in the East, and further illustrations will be adduced as we advance. In the instance referred to, so anxious were the men and women of it to vary the monotony of their diet that they actually purchased bacon off the Mehtees or Cheemars—Surepees, &c.—of the station, which they well knew had been fed by the latter on the excreta of their comrades. Though I and others warned them of the risk they were thereby running, both as to dysentery and dyspepsia, tapeworm and skin-eruptions of sundry kinds, they would persist in purchasing it. But this can hardly be called "offal eating," and I merely introduce the episode to point a moral, and impress on my readers the necessity of varying their dietary as much as they can, in the interests of their health and salubrity."

I have already given so many examples of carrion-eating and its consequences that I need not further dwell upon them here; and as to those poor outcasts—those pariahs of savagedom—who have to fight their way to food of any kind, through leaguering hosts of beasts that are as hungry and far more ferocious than themselves, their name is, I fear, legion. Living within the recesses

of gloomy forests, on the shores of desert seas, on the branches of trees, or in caves or holes of unexplored jungles or howling wildernesses, they cannot, poor devils, afford to be fastidious. They must seek or seize their prey, according to the good old rule, the ancient plan of their sires, or perish in the struggle. For it cannot be said of them that "'Tis the pasture lards the brother's side, the want that makes him lean." They have no such "pasture" as is here contemplated. Their teeth and other physical endowments or conformation call for something more substantial than grass, and, being "to the manner born," they must conform to their surroundings, and live like their congeners on such "offal," such stinking fish or putrid carrion as the locality supplies.

And that there are now, as there ever have been, wretches of this kind cannot be denied. We have examples to hand in the Viddahs of Ceylon and in the Ainos of Japan, as well as in the Bushmen of Southern Africa and in the Ghorids and Bygas of the Satspura Range. Many others might be named by ethnologists, and we know from Mela that the Troglodytes "possessed, like these, no wealth, and hiss rather than speak. They live in caves, and feed on serpents." Tacitus adds, with his usual force and precision, that such was the poverty of the Fins that "they had neither houses nor gods: grass was their food, skins their raiment, and the ground their couch," and Hugh Miller gives several other examples of this kind of degeneracy in his "Testimony of the Rocks," pp. 252-4. Dwelling on the fanaticism of some Eastern Christians, Lecky says ("European Morals," Vol. ii., p. 116) that, "in Mesopotamia and part of Syria there existed a sect known by the name of Grazers, who never lived under a roof, who eat neither flesh nor bread, but who spent their time for ever on the mountain side, and eat grass like cattle;" and, describing the inhabitants of the Island of Socotra in his day, Sir Thomas Roe said ("The Journal of Sir T. Roe" [Lond., Trubner, 1873], p. 13), that: "The fourth sort are a strange people, poore, leane, naked, with long haire, eating nothing but roots; hiding in bushes, conversing with none, afraid of all . . . and almost as savage as beasts." Of the people of another island which he calls Soldania, he says that they "eat carrion, wear the guts of sheepe about their necks for health, and rub their heads with the dung of beasts and durt;" and all the old voyagers or travellers are full of similar descriptions or stories.

Thus, to give only a few more illustrations of this demoralization or proclivity, Commodore Byron says (Hawkesworth's "Discoveries in the Southern Hemisphere," vol. i., pp. 79, 80) that "the people (they met near Cape Monday, Straits of Magellan) were the nearest to brutes in their manner and appearance of any he had yet seen; they were, like some we met before, quite naked, notwithstanding the severity of the weather, except part of a sealskin which was thrown over their shoulders; and they eat their food, which was such as no other animal but a hog would touch, without any dressing. They had with them a large piece of whale-blubber, which stunk intolerably, and one of them tore it to pieces with his teeth. He gave it about to the rest, who devoured it with the voracity of a wild beast"; and, describing another party whom Captain Wallis met on Prince Rupert's Island, he (the captain) says (*ibid.*, pp. 390-1) that "they (the natives) were covered with sealskins which stunk abominably, and some of them were eating the rotten flesh and blubber raw, with a keen appetite and great seeming satisfaction." Of another party they met further on, he says (*ibid.*, pp. 403-4) that "they had on board some seal's flesh, blubber, and penguins, all which they eat raw. Some of our people, who were fishing, . . . gave one of them a live fish. He took it hastily, as a dog would a bone, and then proceeded to eat it, beginning with the head, and going to the tail, without rejecting either the bones, fins, scales, or entrails"; and, speaking of a very different race, soil, and climate, "Captain Cook once saw (Cooke's "Universal Geography," vol. i., p. 62) the Marquesas Islanders make a batter of fruit and roots with water in a vessel that was loaded with dirt, and out of which the hogs had been that moment eating, without giving it the least washing, or even washing their hands." When he expressed his dislike of this procedure, he was laughed at for his pains. Others they met "devoured with the greatest eagerness large quantities of stinking train-oil and blubber of seals, which had been kept for near two months; and on board the ships they were not satisfied with emptying the lamps, but actually swallowed the cotton and stinking wick with great avidity"; and these and their like are the pleasant gentry I would classify as "offal eaters." They are certainly not the "parties" one would like to ask to his table at home or abroad.*

This, it may be said, is descending very low in the scale; but there are lower depths still, and to these we must now address ourselves if we would only do justice to our thesis. We must, in short, say a word on those other phases of this tendency that are known under the two headings of Lice-eating and Clay or Dirt-eating. Repulsive though the former practice is, yet is it one of great antiquity and very wide diffusion. So wide and ancient is it, indeed, that a disease of a somewhat fabulous or mythical character, called the "Morbis Pedicularis" or "Pediculosus," has been built upon it; while theological rancour and political prejudice have variously turned, or, rather, tortured this to their own accounts. The deaths of Sulla, Pym, Calvin, and other unpopular leaders have been ascribed to it, and there can be no doubt at all as to the facility, nay, the almost incredible rapidity,† with which these filthy parasites increase and multiply under the stimulus of privation, neglect, disease, dirt, and other kindred causes.

It was so during our old Irish, as during our late Indian, famines. It was so in the time of the beleagured Crusaders (Michaud), as well as during our own operations in the Crimea ("The History of the Royal Sappers and Miners," vol. ii., p. 291). Lady Sale expressly tells us in her journal that she and her companions became, in spite of themselves, the victims of these attentions during the first Cabul Campaign, and we know from other sources that this same Afghanistan, though

". . . . declared to be so charmin',
Throughout is swarmin' with the most alarmin' kind o' varmin."

Hotel Waiter: "You are late for lunch, sir." Eminent physician: "Yes; I had to finish my magazine article on the 'Laws of Health,' so as to get it into the next mail. What have you to-day?" Waiter: "Hot rolls, clams, plum pudding, apple dumplings, mince pie, and fruit cake." Physician: "Bring 'em all."

---

* For further details of this kind see Cooke's "System of Universal Geography," vol. ii., p. 128, 214, &c.

† The celebrated Leewenhoeck—who may be almost called the father of microscopy—estimated from experiments on his own person that "two females, conjointly, might have produced eighteen thousand eggs in two months"; while "a single ascaris produces," according to Darwin, "Animals and Plants under Domestication," vol. ii., p. 379, "64,000,000 eggs in its single lifetime."

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

STERILIZED MILK AS A FOOD.

MANY months ago we called attention to some investigations of Professor Loxhlet, pointing out the value of sterilized milk in infant-feeding. Sterilized milk is that in which all the germs have been destroyed by steam. With the lapse of time this process of preparing milk has been continually increasing in favour, and Dr. Loxhlet has invented an apparatus for the easy preparing of sterilized milk. Some time ago Professor Vaughan, of Michigan University, demonstrated the fact that milk was apt to contain a germ tyrotoxicon, of evil import in diarrhœal affections. On the other hand, milk sterilized in Loxhlet's apparatus, boiled thirty minutes, remained good eighteen days. Dr. Jeffries publishes in the *American Journal of Medical Sciences* his results in infant-feeding with sterilization and sterilized milk. He was led to pursue his investigations on account of the trouble his dispensary patients experienced in obtaining proper milk. He says, "I have since undertaken to devise some way by which milk can be practically sterilized—to lay down a rule applicable in any house, by any ordinary nurse."

His directions are as follows:—1. "Stopper the flasks with cotton-wool and heat them in an oven for thirty minutes at a mild baking heat, or *until the wool becomes brown.*" 2. "Pour the requisite quantity of food into the flask, and then place in a heated steamer for fifteen minutes."

As the above process does not affect the casein, otherwise than rendering it preservable—a great point—it will be best to peptonize the milk, by adding a *Fairchild Zymine Peptonizing Powder* to each pint.

Unquestionably a great evil in the use of milk is its tendency to spoil, its great liability to absorb germs and gases. Dr. Loxhlet says, "During the process of milking particles of milk and other forms of dirt get into the milk, and during transportation and general handling fermentation sets in, so that much of our milk is really unfit for consumption before it gets into the hands of the consumer—*i.e.*, into the stomachs of infants and children. Mother's milk, on the contrary, is taken directly, but would undoubtedly be equally contaminated and frequently injurious to infants if it suffered the same manipulation as cow's milk.

In an able article in the *Dietetic Gazette* Dr. A. Caille says, "The boiling of milk in the ordinary way is faulty. All milk for infants' and children's use should be boiled in small bottles in a water-bath for twenty minutes, when it will keep much longer than if boiled in the ordinary way and the usual length of time."

The *New York Medical Record* sums up the matter in the following sensible way:—"The fact that sterilized milk is sure not to ferment for a considerable period of time must recommend it strongly. On the other hand, it is believed by some that boiled milk has lost some of its more delicate properties as a food; and as between fresh milk and sterilized milk, we think no one will hesitate to *prefer* the former." As to milk prepared by the Fairchild process, the *British Medical Journal* holds that "it has probably done more to reduce the rate of infant mortality than any other therapeutic measure of recent times."

CREED, CRAFT, AND CURE.

BY MEREDITH CLYMER.

THIRD AND CONCLUDING PAPER.

SUGGESTION, as an important factor in certain mental states, influencing the course of thought, qualifying percipience, and directing actions, is recognized by psychologists. Shakespeare knew its power, when "that suggestion" unfixes Macbeth's hair, and makes his

"seated heart knock at the ribs
Against the use of nature."

In Mackenzie's "Man of Feeling," Mr. Harley, coming to London, was unable to sleep on account of the noise in the streets. Opiates were of no avail. One night he accidentally touched his shoe-buckle, which lay on the table beside his bed; it brought to mind his aunt in the country, who was in the habit of reading him to sleep, and the monotonous sound outside at once suggested her voice; he soon became drowsy and fell asleep. Say to a girl, "How you blush," and the crimson is very likely to mantle her cheeks. The contagiousness of gaping is of common observation. Call to a person who is near a candle, "Your hair is burning," and he is almost sure quickly to draw back and put his hand to his head. The sight of certain insects is apt to produce the sensation of itching, or of something crawling over the body.

We all know persons rich in sensibility, but poor in will. They are generally of nervous organization, very impressible,

"And take suggestion as a cat laps milk."

Their will either is originally weak, or, not having been duly exercised, gradually grows feebler, until the ability to call it up is almost lost. We say of them that they are "easily led," "have no decision." Such persons are indeed "puppets pulled by suggesting strings" held by another of stronger volition and force of character, who bends their service to his will. In old age there is deterioration of will-power, and the same happens from the prolonged use of alcohol, hasheesh, opium, chloral, cocoaine, and other narcotics.

Mr. Braid, while investigating the alleged "odyle force" of Baron Reichenbach, found that whatever sensations were producible by the agency of magnets, crystals, &c., the same event happened when the subjects believed that the agents were being used, although they were not, and that the quality of the experienced sensations depended on the ideas formed by the subject, and which had been previously suggested to him. A lady, of sound health, being put into a dark closet, in the waking state, and directed to look at a powerful magnet, when asked to describe what she saw, replied, after gazing awhile, "Nothing." When told that, if she looked attentively, she would see streams of fire come out of the instrument, she immediately said she saw a shower of sparks similar to those in some kinds of fireworks. The lid of the box which contained the magnet being closed without her knowledge, she still saw the sparks. The experiment was frequently repeated, with the same result whenever she went into that closet, even after the magnet had been removed to another room. Here expectation and "the mere association of ideas were sufficient to cause her to realize a visible representation of the same light and flames." Another placed her hands on the poles of a magnet, and there was, naturally, no attraction between the hand and the magnet; but when it was suggested that her hand would be held fast by its attraction, then she was unable to withdraw it.

Dr. Carpenter mentions the case of a gentleman of high literary and scientific attainments, possessing in an

unusual degree the power of self-concentration, who, when in the waking state, placed his hand on a table and fixed his attention upon it for half a minute, would be unable to withdraw it, if assured in a determined tone that he could not do so. He, too, could be brought to see flames issuing from the poles of a magnet, of any form or colour that might be suggested to him.

If disease can be caused by the emotions in a class of patients, it can occasionally be removed by them. Physicians know the effect produced upon hysterical paraplegics by the threat to sear the back with a hot iron. Recovery of the lost power of the lower limbs, in persons thus afflicted, on their experiencing a strong emotion, as anger, fright, has sometimes happened. A certain lady, who had not walked for years, being at a seaside resort, was wheeled in a chair to the beach by her husband, who quitted her to go a short distance. On his return he was surprised to see her running towards him, and found that in his absence she had been insulted by a couple of drunken sailors, and had thus suddenly recovered the use of her legs. During the earthquake in the Riviera, last year, persons who had been paralyzed for years, it is said, were cured immediately, and were seen running in their night-clothes through the streets from the threatened houses. It is wonderful how often such hysterical subjects become quick-witted and quick-footed under the influence of fear or other emotions.

The influence of suggestion in the mesmeric state is curiously shown by placing the sensitive in certain attitudes, the usual physical accompaniments of some of the passions and emotions. When the body and limbs are stiffened and the head thrown slightly back, we have the expression of pride; when slightly bent, that of humility; when on the knees, with hands clasped and the eyes looking up, deep devotion.

The exercise of will-power by a patient has been known to be followed by happy results. The author of that charming work, "The Original," tells how he successfully combated invalidism, to which he had been subject from infancy. "During these long years," he writes, "I felt no security. One day, when reading Cicero's 'De Oratore,' some passage decided me to rise from my book, stand bolt upright, and determine to be well," and complete restoration of health ensued, which continued until within a short period of his death, many years afterward.

All the miracles of healing in ancient and modern times seem explainable by the trilogy, Expectation, Suggestion, Faith. The quack says his medicine will cure, and it is taken with this assurance. There is no doubt on the part of the patient. Full confidence is first secured, and the cure may follow. And so it is with the Mind Cure, Suggestive Medicine, Mesmerism, Magnets, Metals, and the Well of Lourdes. Quite recently, in New Jersey, a girl, after an attack of measles, lost her voice. Her parents had heard of the cures of like cases effected by visiting a certain chapel in Ireland. They were too poor to take her there, but they procured some of the plaster from the wall of the chapel, and the child drank of the water in which it had been soaked, and her voice immediately came back. Dr. Bernheim mentions the case of an hysterical girl who came to his clinic with loss of voice. He said before her that such cases were often successfully treated by electricity. Before using it, however, he applied his hand over the larynx, saying, "You will now be able to speak," and the voice returned.

Whatever may be the successes of Suggestion as a healing agent, it can never become a remedy of general application. Its limitation is distinct. Impressible natures only, whether hypnotized or in a waking state, can be brought under its influence. When any evidence of its having cured organic disease is presented, it will be time enough seriously to consider its merits. When it removes a cancer, arrests pneumonia or typhoid fever, its claims as a mode of healing may receive attention. No reliable testimony to such an effect has so far been brought forward. Lord Bacon tells us that "the mind of man is full of superstition and imposture," and that it is consonant to its nature "for the affirmative or active to effect more than the negative or privative. So that a few times hitting a presence, countervails ofttimes failing or absence." When Diagoras was shown, in the temple of Neptune, the votive offerings of those who had escaped shipwreck, and was asked if it were folly to invoke the god in a tempest, he replied, "Where are they painted who were drowned?" When the event answers expectation it is registered, but the more numerous failures are passed by.

The history of all marvel cures tells the same tale. Each healing epidemic has its period of birth, development, decay, extinction; and its sun often goes down while it is yet day—pitiful evidence of the infirmity of the human mind, so readily moved by novelty, so credulous of wonders. When man has more concern about, and knowledge of, the means of his existence—what Faraday called "the very beautiful laws and conditions by which we do live and stand upon the earth"—then we shall be less likely to

> "So stain our judgment . . . .
> To prostitute our past-cure malady
> To empirics: or to dissever so
> Our great self and our credit, to esteem
> A senseless help, when help past sense we deem."
>
> —*The Forum.*

Voice Stimulants.—Dr. Lennox Brown treats the question "What shall I sing on" in his work, "Voice Use and Stimulants," with the assistance of nearly 400 vocalists, who have contributed their experience, and notably with alcohol and tobacco. The showings are curious, as, for instance, in the case of 70 singers who find some stimulant necessary. 33 take stout, ale, or porter; 10 stout or port; 2 stout or sherry; 11 port; 2 sherry; 4 claret; 2 spirits; 1 wine or spirits; 3 sherry and egg; and 1 "a glass or two of anything"—stout, champagne, port, or claret. Jenny Lind advises raisins. Sims Reeves would do without any stimulant if possible; but, if forced to use one, would take a glycerine lozenge, or a little claret and water. Titiens drank plain sugar and water. Dr. Brown found that 262 of his 380 correspondents were smokers, divided as follows: 69 smokers of pipes; 40 of pipes and cigars; 4 of pipes and cigarettes; 52 of cigars; 28 of cigars and cigarettes; 34 of cigarettes; and 35 of all three, indifferently.

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The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

INFANTILE CONSTIPATION.

Dr. Eustace Smith, in the course of an able article in the *British Medical Journal* on the above subject, says that in all cases where an infant's bowels are habitually costive, it is of the first importance to enter thoroughly into these questions of clothing and diet. In addition, care should be taken that the bowels are regularly stimulated by manipulations from without. The sluggishness of peristaltic action which forms a part of every case of habitual constipation may be very materially quickened by judiciously applied frictions. The nurse should be directed to rub the child's belly every morning after the bath. She should use the palm of the hand and ball of the thumb, and, pressing gently down upon the right side of the abdomen, carry the hand slowly round in a circular direction, following the course of the colon. The frictions may be continued for five minutes. In obstinate cases the child may be laid down upon the bed, and the bowels gently kneaded with the thumbs placed side by side; but in this case, too, the movements should follow the course of the larger bowel.

In addition to the above treatment, more special measures have often to be employed. These may be divided into two classes: the class of suppositories and injections, and that of remedies given by the mouth.

The class of suppositories and injections aims at producing an immediate evacuation of the bowel, and in no way tends to promote more regular action in the future. These remedies are, therefore, useful in clearing the way for further treatment, but there their value ends. A suppository of Castile soap introduced into the rectum is a time-honoured method of inciting an evacuation in the child. Another old-fashioned plan has lately been revived, which consists in the injection of forty or sixty drops of pure glycerine into the lower bowel. In each case energetic peristaltic action of the alimentary canal is induced, and the bowel is thoroughly emptied of its contents. Of these applications the action of the glycerine is very rapid, and in a few minutes the effect of the injection is seen. The soap suppository acts more slowly.

Injections of soap and water, or other liquid, have an entirely mechanical action in relieving the patient. To be effectual such injections must be large, consisting of at least half a pint of fluid, and should be thrown very slowly into the bowel. Still, although of service when given only occasionally, the frequent use of large injections is not to be recommended; indeed, this method of treatment is distinctly hurtful in cases where the costiveness has become a habit. Even in young babies great dilatation of the bowel and serious weakening of its muscular coat have often followed the daily use of the enema pump.

For the permanent cure of habitual constipation, adds Dr. Smith, remedies given by the mouth are greatly to be preferred, but, at the same time, strongly acting purgatives are worse than useless. Our aim should be to find the smallest dose which will awaken a normal degree of energy of peristaltic action, and to give this dose regularly so as to induce a habit of daily evacuation. The daily dose is most efficacious when combined with a remedy which tends to give tone to the muscular coat of the bowel. For this purpose a useful draught (to be prescribed only by a physician) is composed of half a drop of tincture of nux vomica combined with ten drops of tincture of belladonna and twenty of infusion of senna, made up to a fluid drachm with infusion of calumba. This draught should be given at first three times a day before food, but soon two doses in the day will be sufficient, and it is rarely long before one dose given at bedtime has a sufficiently laxative effect.

Our object is not to excite watery evacuations, but to induce as faithful an imitation as possible of a normal action of the bowels. The liquid extract of cascara is useful in many cases, especially if combined with tincture of belladonna. Twenty, thirty, or more drops of cascara extract, with ten of the belladonna tincture (a doctor alone can judge of the doses necessary for each age), may be given with a few drops of glycerine in a little water every night. In the west of England a remedy held in high esteem consists of half a grain of sulphur coloured red with cochineal. That this apparently insignificant dose is often efficacious, when given regularly every night, I can testify from my own experience.

Patent Medicine Man (to editor): "You made a nice mess of that testimonial advertisement." Editor: "How?" Patent Medicine Man: "John Smith wrote, 'Your Live Forever Pellets are doing me a great deal of good. Send me another box'; and I told you to give it a prominent place." Editor: "I did—immediately preceding the death notices." Patent Medicine Man: "Yes, and the first death notice on the list was that of John Smith!"—*Tid Bits.*

The Value of Vaccination.—Zurich, according to a daily contemporary, is beginning to suffer from the effects of neglect of vaccination. Until 1883 a compulsory vaccination law was in force, but in that year it was repealed, the success of the anti-vaccinationists depending, we are told, upon the fact that not a single case of small-pox occurred in 1882. But in 1883, in every 1,000 deaths, 2 were caused by small-pox; in 1884 there were 3 in every 1,000; in 1885, 17; and in the first quarter of 1886 there were 85 deaths. While Europe is exhibiting folly by showing, in some localities, opposition to vaccination, Japan is deriving benefits from the recognition of its value. Nagasaki, we learn from another contemporary, possesses a governor, named Kusaka, who is bent upon ridding the town of the diseases which formerly infested it. By means of a system of compulsory vaccination, vigorously enforced by the governor, small-pox, long a familiar scourge in the old town, has been practically stamped out. In England we may expect soon to have the opportunity of considering the effects of small-pox on vaccinated and unvaccinated communities respectively, for certainly some of our towns are slowly returning to the condition of being unprotected against small-pox. The result of this change will be first shown in the difference in the ages of persons dying from small-pox: in the unvaccinated communities it is the younger members who would chiefly suffer; in the vaccinated, the older. Germany, on the other hand, is showing the effects of revaccination, and hitherto the freedom of German towns from small-pox has contrasted in a marked degree with a larger prevalence of this disease in European towns where revaccination is not enforced. Probably the outcome of the experience of the present generation will be the enforcement of revaccination in the majority of European countries.—*Lancet.*

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Healthy Houses

"A happy home must be a healthy home."—*Anon.*

BACK-TO-BACK HOUSES, AND THEIR EFFECTS ON HEALTH.

A growing tendency is shown on the part of the public to recognize the value of the sanitary doctrine which lays stress on the influence of environment upon health. This idea has come to us straight from the domain of natural history. An animal or plant is largely what its surroundings make it. Conditions which favour nutrition and promote growth contribute to the prosperity of the race. Paucity of food, impure air, or other insanitary states, militate against the health of individual animals or plants and thus affect the species at large. The human being is not only not exempted from the influence of the conditions of his life, but is in many cases singularly susceptible to it. A striking example of this principle is afforded by the researches of Dr. Buchanan, of the Local Government Board in England, and of Dr. Bowditch, of Boston, U.S., into the effects of soil on disease, and especially on consumption. The former investigator was struck by the fact that this disease had apparently diminished in a ratio corresponding to the dryness of soil brought about by improved drainage.

A first inquiry showed, for example, that the drying of the subsoil by sewers, drains, and culverts in such towns as Salisbury, Ely, and Rugby had been followed by a satisfactory reduction of the mortality from phthisis. In Salisbury the rate fell 49 per cent., in Rugby 43 per cent., and in Ely 47 per cent. On the other hand, in such places as Morpeth, Stafford, Alnwick, and Ashley, the first investigations showed that no reduction in the death-rate from consumption had taken place, even although marked improvement had been effected in cleanliness, this result being due to the fact that the wet subsoil had not been dried by drainage operations. A second inquiry fully confirmed Dr. Buchanan's views, and Dr. Bowditch in his turn supplemented the valuable conclusions of his English colleague by the results of independent observation. Consumption, then, can be materially affected by the nature of our surroundings; and what is true of this disease holds good also in the case of many others propagated by impure air, water, and food. The lesson thus taught is of immense practical value, for it strengthens the hands of health-reformers in demanding that the lives of the people should be passed in suitable conditions. Municipal improvements in light, air, open spaces, and healthy houses are justified by the discovery of this natural law. The question is a simple one in its details, but this very simplicity is apt to throw its importance into the shade. In this view a warm welcome should be given to a report on "Back-to-Back" Houses, just issued by the Local Government Board, and bearing the names of Dr. Barry and Mr. P. Gordon Smith as its authors.

By the phrase "back-to-back" houses are meant structures—more commonly found in England than in Scotland it must be admitted—in which rows of houses abut on one another to the rear so closely as to leave no space between them, thus destroying all chance of free circulation of air. The crowded towns of England owe their characteristic aspect to this mode of setting down dwelling-places in such positions as to literally stifle the life out of the inmates. We learn from the report that in Lancashire, in the Potteries, and in the Black Country the back-to-back style of building "has been almost entirely discontinued." This is a highly satisfactory statement, but the remedy for a serious condition of affairs has come none too soon, and is still in need of being duly applied to the whole country. Thus in Bradford, we are told, in the eleven years from 1876 to 1886, out of a total of 7036 new houses certified as fit for habitation, 4486, or 64 per cent., were actually built on the insanitary back-to-back plan. Put in another way, house accommodation for over 20,000 persons was constructed without a due regard to free ventilation as a necessary condition of health. In Leeds, from August, 1885, to August, 1887, out of 2311 houses of all classes certified as fit for habitation, 1052, or 45 per cent., were built back-to-back; or during a period of twelve years ending August, 1887, out of 16,070 houses of all classes built in Leeds, two-thirds (10,780) were constructed in this faulty fashion. Halifax showed the same tendency. From 1876 to 1886, out of 2094 new houses, no fewer than 1287, or 61 per cent., were of the back-to-back type.

The prevalence of such dwellings, therefore, does not admit of discussion. The reason for the adoption of this back-to-back system would seem to be the dearness of building land. Increase of the population and demand for room are conditions which go hand-in-hand; and the method of house-building just noted is a concession to these conditions. Where the cost of building land is excessive, "it is hardly to be wondered at that there should be a tendency to crowd houses upon area." These are the words of the reporters; and when it appears, further, that in the suburbs of certain towns land cannot be procured for building save at a cost of from £1089 to £2420 per acre, one may cease to wonder that artisans' dwellings should be crowded together in the manner described.

The important question of the influence of back-to-back houses on the health of those who inhabit them is duly treated by Dr. Barry and Mr. Smith. In a certain division of Salford there are nine areas or districts in which no back-to-back houses exist, this area having a population of 8713; then succeed thirteen areas with about 23 per cent. of back-to-back dwellings, and a population of 11,749; while a third division of twelve areas is found having 56 per cent. of such houses, and a population of 11,405. It is extremely interesting to compare the relative mortalities of these districts. Between 1879 and 1883 the mean annual death-rate was 27·5, 29·2, and 30·5 in the three districts respectively. Taking the mean annual death-rate from other lung diseases than consumption, there is found to be 6·6, 7·8, and 7·9 respectively.

Consumption shows a mean rate for the three districts in the order given of 2·8, 3·3, and 3·6; while infectious diseases stand represented by 4·5, 4·8, and 6·2 per 1000 of the population. Here there is seen a progressively increasing death-rate as we pass from the first district with no back-to-back houses, to that with 56 per cent. of these dwellings. For diarrhœa the death-rate for these three districts showed average annual amounts of 1·40, 1·55, and 2·12 per 1000. Here a disease, which in the very young is especially apt to have fatal results, showed a marked increase in the ill-ventilated, close, and confined district, as compared with the others in which the houses are less closely

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huddled together. Bradford tells a tale even more striking with regard to the last-named disease. In 1878 an epidemic broke out. Some 101 houses were visited in which deaths had occurred. Of these, 90 were built back-to-back, 2 were cellars, and 9 were "through" houses. Of the 90 back-to-back dwellings, 60 fronted the street and 30 fronted back yards. That the deaths were twice as numerous in the front as in the back houses is probably accounted for by the difficulty which existed with reference to the disposal of sewage and refuse. Such refuse is stored up in the houses, and the already foul air being further contaminated, together with the milk-supply of the children, a high death-bill appears as the natural result.

As a general conclusion from the investigations into back-to-back houses and their influence on health, we have the grave statement of the reporters that an increased death-rate from lung diseases is the inevitable penalty we must pay for the overcrowding of buildings and the lack of fresh air. Other ailments are also increased in mortality by the unwholesomeness of the surroundings amid which the masses living in back-to-back houses are compelled to spend their days. If to these proved injuries to physical health we add the unloveliness of such dwellings, the absence of all the conditions of light, air, and cleanliness, without which moral health cannot be looked for, it will be seen that the elevation of the masses is a work for which the social reformer will need all his courage. The city populations, whether thickly packed side by side as in England, or soaring over each other in dense clusters as in Scotland, will not be moved out of their traditional and inherited dirt and disease until we can first induce them to take some pride in living decent lives by constructing for them a "house beautiful," which means primarily a healthy dwelling-place.—*Glasgow Herald.*

"A DOCTOR always remembers kindly his first patient," says a writer. Yes, but not often does he turn in and help pay for the monument.

DIPHTHERIA CARRIED BY TURKEYS.—Dr. Paulinis, in the *Bulletin Médical*, reports a most interesting epidemic of diphtheria which occurred in Skiatos, one of the Grecian Isles, in the year 1884. The population of this island at the time was about 4000. Dr. Bild, an old practitioner, is the authority for the statement that for thirty years no case of diphtheria had been known on the island. In June, a child aged twelve years was attacked with diphtheria, and died. Seven other cases occurred in the immediate neighbourhood: five of these died. The disease extended, until, within a period of five months, one hundred persons were attacked, of which number thirty-six died. Three weeks before the sickness of the first child, a flock of turkeys arrived from Salonica. Two of these were sick on arrival, and each of the others was subsequently attacked. Dr. Paulinis found in the throats of the sick ones patches of false membrane. The glands of the neck were swollen, and in one bird the disease had extended to the larynx, making it hoarse. One of the turkeys, after recovery, had paralysis of the legs, and was unable to walk. Although there had been no immediate contact between the sick birds and the first child attacked, still the distance between them was slight, and a wind had been for some time blowing in a direction favourable to the transportation of the disease. Dr. Paulinis believed that the disease was contracted from the turkeys, its germs being carried by the currents of air.

NOISY NUISANCES.

THE faith of the public, says the *Sanitary Record*, in the powers of police magistrates is great. Whatever be the grievance, they seem to think they have only to mention it to "his worship" in order to have it put right. The law professes to provide a remedy for every wrong, but in many cases the remedy is not to be obtained from inferior courts.

Nuisances of all kinds, whether they take the form of disorderly crowds, troublesome noises, unwholesome smells, or any other of the inconveniences of life, are dealt with by the superior Courts; but the powers of magistrates with respect to them are limited. In the metropolis, under the Nuisances Removal Acts, and elsewhere under sect. 91 of the Public Health Act, certain nuisances may be dealt with summarily; but others can only be suppressed by the more expensive dilatory proceedings required in the superior Courts.

Among those which may be dealt with summarily is "any animal so kept as to be a nuisance or injurious to health." There can be no doubt that animals which persistently make a noise at night, so as to interfere with sleep, are in ordinary language "a nuisance," and in case of invalids may be most injurious to health. Judging by newspaper reports, many members of the public and some lawyers and magistrates think that the owners of such animals can be dealt with summarily under the power above set out.

The question has never come before a superior Court, but we doubt the power of magistrates to deal with noisy animals as a nuisance. In our issues of November and December, 1884, and elsewhere, we pointed out that nuisances caused by noise, if serious, can be dealt with and suppressed by the High Court, but that the power to punish the keeping of animals is intended for cases where they are dirty, and not where they are merely noisy. It might be very desirable that magistrates should be able to punish the owners of parrots which screech, of dogs which bark, or of cats which serenade and disturb the neighbourhood; but, as far as we know, Parliament has not given them such powers.

We notice that, as a rule, the magistrates are careful not to commit themselves in these cases, and prefer to act as mediators rather than as administrators of the law. They may thus often persuade the owners of the offending animals to remove them, or in some other way to diminish the annoyance they cause, and so their intervention is beneficial. If more than this is attempted, we anticipate an authoritative declaration that the law gives them no power to interfere in such matters.

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Popular Science Papers

"Blessings on Science! When the Earth seemed old,
When Faith grew doting, and our reason cold,
'Twas she discovered that the world was young,
And taught a language to its lisping tongue."
—*Charles Mackay.*

THE PHYSICAL BASIS OF BRAIN-WORK.

By Woods Hutchinson.

Is there any element in brain-work but the physical?

"Doctors differ," but upon this point all agree, that it is the only element in that complicated process which we possess any material means of studying or modifying, and hence is entitled practically to our undivided attention as physiologists. We are totally unable to imprison a thought beneath our cover-glass, to ascertain the specific gravity of a concept, or the form and colour of a moral judgment, but we can observe and study the thought-organ, and determine under what conditions of its substance these processes are advanced or retarded, and crudely measure their intensity by the amount of energy expended. This has been found to bear sufficiently constant relation to the intensity of the process, to afford a rough indication of the force and vigour of the mental operation. Following closely upon this comes the question, "Is the measure of the physiological efficiency and integrity of the thought-organ the measure of the intellectual capacity of the individual?" and further, and still more pertinent to our range of enquiry, "Is the development of the thought-organ always proportionate with the development of the other tissues of the body?" In other words, "Is a good brain likely to accompany a good physique?" Recent investigations have answered the first question for us by showing conclusively that the brains of those of marked ability in any particular field are unmistakably superior, both in size, weight, and complexity of structure, to those of the average of their fellows. The second question yet remains unanswered, and my object in this sketch is briefly to submit a few considerations bearing upon its solution. We all know what the popular theory upon this question is: that brain must be developed at the expense of muscle, and muscle at the expense of brain; that a man cannot be good for both at once, and the typical hard student is necessarily pale and stooped-shouldered, while the typical athlete or muscle worker is as stupid as the brutes whom he rivals in strength. But popular opinion is not infallible, and with all due deference to it, we would respectfully appeal to the judgment of history and science.

Taking, first, a comprehensive view of the historical data bearing upon the subject, we find two classes of facts; one consisting of comparisons between individuals of the same race in different ages, and the other of comparison between individuals of races of different degrees of civilization in the same age; and the evidence from both classes is unmistakably uniform. In the first class, the few data at our command most decidedly indicate that in spite of our Iliads and Heroics the "men of these degenerate days" are not only healthier and longer-lived, but taller and heavier than their ancestors and predecessors from five hundred to one thousand years ago, inasmuch as they can neither squeeze into their armour, handle their swords, nor even lie down in their coffins.

Many of the suits of armour in the Tower of London would be a tight fit for boys of sixteen to-day, while the average British soldier finds his hand cramped for room on the hilts of the renowned cross-hilted swords of the Crusaders, and going a step further back, the old Greek stone coffins (sarcophagi) are nearly half a head too short for the average man of to-day.

Such records as we possess, of any scientific accuracy, of the feats of physical prowess—such as running, leaping, and hurling the stone—would be easily beaten by our modern athletes.

The other class of data indicate with almost equal clearness that, with a few exceptions, the higher the degree of civilization of a race the greater the perfection of its physical development; in other words, the history of civilization would seem to be the history of an improving physique.

The Indians of our Western plains, the Bushmen and the Hottentots of South Africa, the Negroes of the Gold Coast, the Hindoos of the Indian Peninsula, the Terra del Fuegans of the Antarctic, the Esquimaux of the Arctic Circle, are all almost as markedly inferior to their Aryan contemporaries as the mustang is to the English thoroughbred.

Many as are the stories which are related of Indian speed and endurance, their fleetest couriers can be both out-run and out-winded even by amateurs who have submitted to a similar course of training, while their inferiority in wrestling, boxing, and other feats of strength needs only to be referred to.

A civilized man can beat the savage at his own game, and even with his own weapons. A series of scientific experiments has established the fact that the contractile power of the average Frenchman's biceps is nearly twenty per cent. and that of an Englishman's nearly twenty-five per cent. greater than that of the average Tasmanian's.

What light does the history of the four great world empires throw upon this question? What relations existed between the stages of their physical development and their hold upon their imperial power?

When we are first introduced to them, we find the Babylonians a nation of simple, hardy Chaldean shepherds and hunters, living in tents, and compelled, from the very nature of their circumstances, to develop and depend upon a vigorous physique as their means of existence.

It was these qualities that made them the masters of the then known world, but with power came riches and their almost invariable accompaniment, luxury and effeminacy. They forgot how to fight—a fatal symptom in any nation; their wars are all carried on by mercenaries, their cattle are tended, their leopards killed, their houses builded, and every manly function performed by slaves, whilst they are crowding themselves together in cities, lounging in hanging gardens, gorging themselves with dainties, and rotting the last fibre of their manhood with wine. What is the inevitable result? Outraged Nature revenges herself; and there suddenly appears on their north-western frontier a people, who might almost be regarded as the re-embodiment of the spirits of their ancestors. A mere handful of brave, hardy mountaineers, living by the chase, and capable of existing on beech nuts and goat's flesh, they swept everything before them, and, gathering force as they advanced, utterly overthrew the world's capital herself, and made her empire a thing of the past.

The "fittest" had survived, but so had the law of selection, and at last, after years of unlimited power, they too became subject to its penalty.

Wealth and idleness had softened their muscles,

unstrung their nerves, and weakened their courage, and they, too, were "weighed in the balance and found wanting." In the very zenith of their power, one of their most adventurous expeditions brought back reports of an insignificant little nation, inhabiting a rocky peninsula and the adjacent groups of islands just beyond their extreme western frontier, who had actually had the hardihood to assist one of their satraps in a rebellion against his master, and an army of myriads was at once dispatched to bring them captives, to be placed on exhibition. They declined to come, and so emphatic and convincing was their refusal that nearly one-fourth of the Persian army was constrained to remain as a fertilizer for that stony little peninsula, while another moiety furnished a royal banquet for the Mediterranean fishes. Thinking there must have been some misunderstanding, the invitation was repeated even more urgently than before, with nearly two millions of couriers to bear the message, and Marathon, Salamis, and Thermopylæ were the Greek notes of acceptance, signed after the ancient custom, in the blood of the writer.

For scarcely a century longer had the Persian degeneracy progressed, when the sword of Alexander suddenly flashed above their national horizon, and in six short years his invincible little wedges of human bone and brawn had rent the empire of Darius into a thousand fragments, never again to be united. Wherein lay the Grecian superiority? A single incident furnishes the key to the whole question. When the Persian invasion was impending, the Greeks naturally shrunk from meeting such myriads single-handed; but their confidence was instantly restored when the first Persian prisoners brought in were publicly stripped and their slender muscles and soft white skins exposed to view.

It was the contest of men against weaklings, and they had no fears for the result.

The three hundred who held hundreds of thousands at bay at Thermopylæ, and the men who scattered the barbarian myriads like chaff at the Granicus, were the results of centuries of the most careful artificial selection to which the human race has ever been subjected.

For generations the weaklings had been destroyed in infancy, and only the robust and vigorous permitted to survive; in childhood they had been cradled in the hollow of their father's shield; their earliest playthings had been the dull spear and the wooden sword; from earliest boyhood they had been dieted, trained, and hardened as skilfully and rigidly as gladiators preparing for the arena; and the legitimate result was, not only a physique which for strength and beauty has never yet been surpassed, if equalled, but also a brain which in vigour of conception and keenness of insight still holds its place in the very foremost ranks of the march of intellect.

Had they preserved the balance of their powers, they might have been masters of the world to-day; but again the inevitable law of decadence after maturity becomes manifest.

The lists of the Olympic games are thronged with professionals; a Plato is heard lamenting that their gymnasia had become mere arenas for the exhibition of feats of skill by hired athletes; the living "bricks" in the walls of Sparta are replaced by mercenaries; and intellectual and moral degeneracy surely and rapidly follow. Already the screaming of the Roman eagles is heard upon their western coast; and grand old Greece falls, almost without a struggle, before a people who are vastly her inferiors in every particular save their physical vigour and a wolfish greed for battle.

The Roman was essentially a fighting animal. He was bred and trained as such; and his short, heavy sword, driven by his strong right arm, and directed by the brain which inevitably accompanied it, carved out a world-empire, the most splendid and most enduring that the race has ever looked upon.

All our forms of legal and political thought still bear the stamp of Rome, and every schoolboy is familiar with the history of her rise and fall.

It is the old, old story of riches, luxury, and effeminacy, and a horde of athletic savages, our ancestors, shatter to atoms the greatest political masterpiece of any age.

(To be concluded.)

CHRONIC TEA-POISONING.

FOR nearly half a century a few observing physicians have been crying out against the common practice of tea-drinking as one unwholesome and dangerous to health. Within recent years, the number of physicians of eminence in the medical profession who have offered their testimony against the use of tea has very greatly increased. Recently, Dr. Bullard, of Boston, read an article on Chronic Tea-Poisoning before the Massachusetts State Medical Society, in which he condemned the use of tea in the following very strong terms:—

A year and a half ago the author published a paper, giving the results of somewhat extended investigations on the subject. He found that the poison is not readily eliminated, but accumulates in the system; that its prominent effect is on the young, and those who are in a depressed physical condition; that the average amount of Oolong and Souchong teas (medium grades) needed to produce injurious symptoms is a little less than five cups a day; and that the most common symptoms are loss of appetite, dyspepsia, palpitation, headache, vomiting, and nausea, combined with various forms of functional nervous affections, hysterical and neuralgic.

These results have been confirmed by further investigations—mostly among women who are accustomed to drink a considerable amount of tea daily, without taking adequate food, and when in an exhausted condition.

The nervous disturbance due to chronic tea-poisoning is of a peculiar character. Says Dr. Bullard: The normal condition of the nervous system is disturbed and replaced by a condition of hyper-excitability, or of less stable equilibrium.

This is shown by their want of calmness, their general restlessness and irritability, and the desire to be constantly moving; while, at the same time, there is a subjective sensation of a loss of self-control, and of inability to act slowly.

Such persons are subject to exaggerated efforts from ordinary impressions; they are startled, jump at unexpected noise or sensations, or, in other words, react too freely to slight external influences.

ARTIFICIAL SPONGE-REARING.—Artificial sponge-rearing is being carried out in Styria by Professor O. Schmidt, of Gratz. From a report to the Board of Trade it appears that the Professor, by taking small pieces of living sponge and planting them in favourable spots, has obtained large sponges in the course of three years. It is stated that 4,000 sponges cost no more for cultivation and interest on capital than 225 francs, and the Austro-Hungarian Government has authorized the protection of this new industry on the coast of Dalmatia.

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MEDICAL PRESS, June 13th, 1888.

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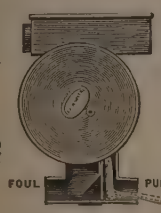

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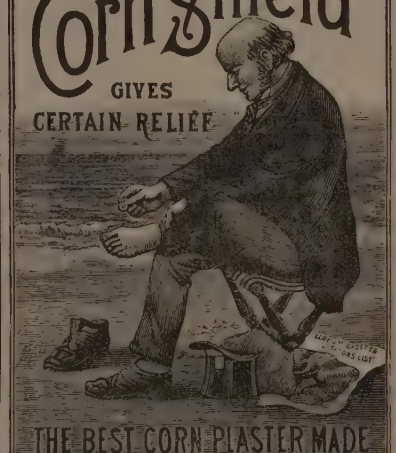

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For Pains in the Stomach, rubbed in before the fire.
If a little be well rubbed in for a few minutes on a Bruise or Pinch, it will prevent Blackness. Will also cure Scalds and Burns, applied directly; and Rheumatic and Gouty Pains fixed in any part.

N.B.—No woollen of any kind should be applied to the parts affected, nor any metal (except silver) touch the Pommade. It will retain its virtues many years, and is therefore very useful to all Travellers, particularly Gentlemen of the Army and Navy.

HÆMORRHOIDS (or PILES).

As highly useful family medicines for that most distressing of complaints, Hæmorrhoids (or Piles), Bayley's Remedies have long enjoyed a high reputation. These remedies consist of specially prepared Pyrmont Tablets for invalid use, and of a Pyrmont Liniment for outward application. The tablets are compounded on the principle of the famous Pyrmont waters, which have been so highly recommended in cases of liver complaints, to the presence of which piles are often due, as well as in cases of the latter ailment itself. The liniment is made on allied principles. From an examination of these tablets and of the liniment, we are able to assert that they contain nothing calculated to produce untoward effects in the most delicate constitution, while they are likely to prove most beneficial in mild and severe cases alike. The ease with which the remedy may be taken—the tablets being agreeable to taste, and being merely allowed to dissolve in the mouth—will recommend this preparation in the eyes of those especially who have run the gamut of the many drugs employed for the cure of hæmorrhoids. We recommend a trial of Messrs. Bayley's Tablets, &c., which are to be obtained at 17, Cockspur-street, London, W.—*Vide* Health, *April 8th*, 1887.

Prepared by BAYLEY & COMP.Y, Perfumers,

THE OLD CIVET CAT, 17, COCKSPUR-STREET, LONDON.

PRICE LISTS FREE ON APPLICATION.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sydney.*

Modes of Disinfection.—No scientific report published by the Government this year has been more important than that just made by Dr. J. J. Kinyown, assistant surgeon in the Marine Hospital Service, upon the germicidal powers of the different methods of disinfection practised under the direction of the Louisiana Board of Health at the quarantine station below New Orleans. The report is important, not only because it shows the degree of protection against the importation of infectious diseases through the important port of New Orleans; but also, since the methods of disinfection practised at other quarantine stations are similar to those in use there, the experiments show approximately the efficacy of each mode of disinfection, and suggest changes that should be made in their use. The three methods of disinfection tested were by the use of bichloride of mercury solution, the application of dry and moist heat, and fumigation with sulphur dioxide. Dr. Kinyown finds the first of these methods defective, because of the difficulty of getting the disinfecting-agent into cracks and corners, carpets, rubber goods, the under sides of decks, and into lockers, &c. He discovered in all these localities and articles that the micro-organisms existing before the disinfection had not been destroyed, and he found them as plentiful on the floor of the forecastle of one ship, that was exceptionally filthy, after it had been drenched with bichloride of mercury for an hour, as before. Dr. Kinyown recommends that, in order to make this mode of disinfection more effectual, the bichloride of mercury be applied with a spray produced by a connection with a steam-boiler, and that it be applied after fumigation by sulphur. The results from the application of dry and moist heat were the most satisfactory of all. Cultivations of various disease germs exposed to a dry heat of 80 deg. C., and afterwards to steam at a temperature of 100 degs. C., were, with few exceptions, destroyed. Dr. Kinyown thinks that, in order to secure absolute protection, the heat should be made greater and the time of exposure increased. In eleven experiments seventy-four disease-germs were placed in vessels among articles to be disinfected by the use of sulphur dioxide, but only sixteen of the whole were destroyed, or less than twenty-two per cent. Dr. Kinyown has very little to say about this method of alleged disinfection, except to recommend that the sulphurous fumes be applied in larger quantities, and confined in the compartments to be disinfected a longer time. But he reports his experiments in full, and lets them speak for themselves. The net result of these tests is to show that some disease-germs escape even when the most effectual modes of disinfection practised at quarantine below New Orleans are resorted to, and that less than one-fourth of them are killed when the least effective method is used. We assume that quarantine and city health officers everywhere will profit by the suggestions of this report, and that the public will be better protected in the future than in the past.—*Science.*

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The Inequalities of Men.—M. Lapouge, of Montpelier, has recently delivered, before the Faculty of Natural Sciences in that town, a series of lectures on inequalities among men, in the course of which he said that the political dogma of equality rests on hypotheses which are utterly false. He distinguished four social types among mankind: (1) The initiators, who show mankind the way into the region of the unknown, and who go in front. Restless and daring, with an intelligence which is at least equal to the average, men of this type do not travel readily along beaten tracks. New ideas are the breath of life to them. They spend their lives in new creations; they are often wrecked, but the true genius represents the most perfect form of this type. (2) Men of spirit, of intelligence, who, possessing no creative power themselves, yet carry out and perfect the ideas and discoveries of the first type, to which they are really the complement. (3) Men who, with much or little intelligence, can work only with others; who mistrust every new idea not accepted by all the others, but who seize it with avidity when their neighbours adopt it. If intelligent, these men are docile; but they dislike every change in routine, and they represent the dullness of the mass in the face of every reform. (4) Men of this type are not fit to attain even the smallest step in culture. Evidently every man cannot be classed under one or other of these divisions. In human societies clear lines of demarcation do not exist, but for general purposes the distinction is sufficiently evident. The superiority of a race or nation depends on the greater or smaller number of men of the first two classes. The race which is richest in the first type is the blond dolichocephalic, and this has been the case even when the people among whom they lived were not of this kind. In Egypt, Chaldea, Assyria, Persia, India, and even in China men of this type ruled. In the Greek and Roman world it was the same, and it is so still. In our own day the rank of a nation corresponds with the strength of the blond dolichocephalic element. The Gallic and Frank elements, which made France great, were of this type, and it plays the same part in England, Germany, and America. Near these come the Semitic and Mediterranean races, who had reached a high grade of civilization when the blond dolichocephalic peoples were still savages. The remainder of mankind must be reckoned the passive races. The brachycephalic races of Europe, the Celto-Slavs, rarely produce men of the first intellectual type. In the social changes of recent years, brachycephalic men, who form the lower classes, have been elevated and brought forward, and herein, the lecturer thought, lies the great danger of the future deterioration of the French nation.

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Domestic Animals and Infectious Diseases.—That domestic pets are capable of taking and spreading infection has been amply demonstrated. That diphtheria is particularly liable to be so conveyed is shown by the experimental researches on diphtheria, made by Dr. Renshaw in 1884, who was successful in inoculating cats with diphtheria from the human subject (see *Journal* of January 3rd, 1885). Dr. Turner, it will be remembered, last year presented an interesting report on diphtheria in animals to the Local Government Board. A further illustration is afforded by the following example, the record of which is taken from the *Sanitary Record* for June: "In his report on the recent sustained prevalence of diphtheria in Enfield, Dr. Bruce Low, of the Medical Department of the Local Government Board, incidentally states that during the continuance of the epidemic cats were observed to suffer in considerable numbers from illness; and in December, 1887, and January, 1888, there was a large mortality among those animals, so much so that the attention of the dust contractor was directed to it. He stated that never in his previous experience

had he seen so many dead cats in the dust heaps. Some households, seeing their cats ill, destroyed them Though there were no known cases of diphtheria occurring in the practice of the veterinary surgeons at Enfield, yet they saw many cases of 'influenza' at this time among animals. The following is an illustration of the possible connection between diphtheria in children and in cats. A little boy was taken ill with what turned out ultimately to be fatal diphtheria. On the first day of his illness he was sick, and the cat, which was in the room at the time, licked the vomit on the floor. In a few days (the child meanwhile having died) the animal was noticed to be ill, and her sufferings being so severe and so similar to those of the dead boy, the owner destroyed her. During the early part of its illness this cat had been let out at nights in the back yard as usual. A few days later the cat of a neighbour, who lived a few doors further off, was noticed to be ill. It had also been out in the back yards at night. This second animal, which, however, recovered, was the pet and playfellow of four little girls, who, grieved at the illness of their favourite, nursed it with great care. All four girls developed diphtheria, their mother being convinced that they got it from the cat; and, indeed, no other known source of contact with infection could be discovered. It is easy to imagine cats catching an infectious illness like diphtheria, when we remember how often milk and other unused food from the sick-room is given to the cat, or by some people thrown out into the back yard for the benefit of the neighbours' cats, if they have none of their own. It is a frequent occurrence to see children carrying cats in their arms, and even kissing them. It is obvious that if the cats were ill with diphtheria the children under such circumstances would almost inevitably contract the disease.—*Lancet.*

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Mesmerism. — A well-connected and modest young man, who lives with his mother in a fashionable part of Paris, recently attended what is called a *soirée d'hypnotisme* at a friend's house. He was sent to sleep, and a stuffed mannikin was placed by his side, which he was told was a man, whom he must murder. The youth did as he was told, and when a knife was put into his hand he ripped the dummy figure open with the fiendish exaltation of a man who was wreaking a long-cherished revenge on an enemy. After that he awoke, but ever since he has been labouring under the delusion that he had murdered his mother. He ran away from his home, and sat weeping on a bench in the Champs Elysées, when two policemen, whose curiosity had been excited, came up to him. On seeing the dreadful agents of the law the poor fellow took to his heels, and was, of course, pursued and arrested. It was only when he was brought face to face with his mother that he regained his senses.

For Burns. — Olive oil, six parts; salol, one part; lime water, six parts, is advised.

The Population of Paris.—The Statistical Bureau of the municipality of Paris has just issued the returns as to the population of the city and of the department of the Seine at the end of 1886. These returns put the total population of the department at 2,961,089, of whom 2,344,450 were resident in Paris itself. At the beginning of the century, the total population of the Seine was only 631,585, so that it is now more than four times larger than it then was, increasing to 1,200,000 in 1840 and to 2,400,000 in 1876. It has, therefore, increased by about 600,000 in the last ten years.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

A BOOK FOR CYCLISTS.

Cycling. By Viscount Bury, K.C.M.G., and G. Lacy Hillier. Illustrated by Viscount Bury and Joseph Pennell. (Badminton Library.) (London: Longmans, Green & Co.)

Twenty years ago, if we had been told that our young men and maidens would disport themselves on wheels about our city streets and country roads, we should have considered the prophet as great a humbug as Mother Shipton; yet, like some of that venerable dame's prognostications, the forecast has been fulfilled. Ours is an age of cycling, and not only is it confined to youths and maidens, but older men and matrons enjoy the healthy exercise, whilst the large number of cycling clubs testifies to the popularity of this form of sport. Cycling, too, has its literature—weekly papers, monthly magazines, and even Christmas numbers are devoted to the interests of the brethren and sisters of the wheel—and their publication is supported by what we might almost term test-books of cycling, which are intended to initiate the tyro into the art and pleasures of cycling, or teach him the mysteries of cycle construction. The volume before us embraces in its matter something of everything enumerated above, with the addition of a vast amount of information as to the history of cycling from the days of the cumbrous and almost useless "hobby-horse" to the present era of safety bicycles.

The work is a joint-production, and the publisher would have had some difficulty in selecting two names whose opinions are more authoritative or respected by wheelmen than those of Lord Bury and Mr. Lacy Hillier. Lord Bury is well known as a keen lover of sport in all forms, as long as the sport is true sport; for there are different meanings, alas! applied to the word "sport." His work in the volume has not been confined to the pen, but he has given us the benefit of the artist's pencil, several of the illustrative sketches bearing his signature.

After a general introduction, which is written in a chatty and sometimes humorous style, we arrive at a chapter headed "Historical." The *Adam* of the present cycle was, undoubtedly the *Draisneue*, or, as it was termed in this country, the *Dandy horse*. Very few of us have ever been so fortunate as to see such a machine in actual use, although we know of one specimen which is preserved as a curiosity by a London cycle dealer. A visit to the British Museum sketches would afford any cyclist some amusement, and, at the same time, show him that his prototype, a *dandy-horsist*, had to face a considerable amount of chaff and ridicule, like the cyclist of the present day. Can we wonder, indeed, at this result when we consider the undignified position which the rider had to assume? History does not inform us whether the ancient *dandy-horsist* had to put up with an occasional assault with juvenile headgear, or whether he had to carefully guide his machine round or over big stones artfully placed in his road by village *gamins* for the pleasure of seeing him either jolt over them or come to grief in the attempt. For, notwithstanding a considerable amount of bad language which these juvenile experimentalists must have heard in their time, language which one would expect the average Sunday-school child would have some respect for, they will persist in adding to the dangers and annoyances of the British cyclist. Whether the ancient rider experienced these delights

cannot now be answered, but certain it is that the general voice of the public was raised in ridicule against the unfortunate rider, and we may rest assured that the playful ways of village and town children would run in similar lines

Although we now scoff at the old "Dandy Horse," it did some good, for it was the germ from which has now developed one of the most charming and healthy occupations of modern times. The "Dandy Horse" set men thinking, and no doubt it set them wishing for a more perfect machine, and the thinkers gradually became makers, and at the Great Exhibition of 1861 some of the fruits of their thought and work were apparent.

The first bicycle, like the first Dandy Horse, was of French manufacture, and the first rider was a Frenchman. But there is a vast difference between the bicycle ridden by M. Turner and the modern machine. The Coventry makers soon improved the machine—they not only made cycles, but they made a name for making them well, and the repute which they commenced to build up in 1869 they have held to, and the principal makers of cycles still call Coventry their home.

All true cyclists should be interested in the history of their machine, and they cannot read a better or more complete account than in this historical chapter alluded to. The accounts and results of the first cycling races will interest the racing man, and may arouse the enthusiasm of some future champion. An interesting account of the first cycling camp, as also the difficulties of the old road races now discontinued, close a chapter which will no doubt call up many pleasant recollections amongst older cyclists.

The chapter on "riding" is evidently written by a practical man. The hints can only be thoroughly appreciated by one who has passed through the various stages. The authors recommend the well-known method of first mastering a "bone shaker" before attempting a more thoroughbred steed. This advice is all very well, but we have often wondered how the cyclist of the future will manage when bone shakers have disappeared, or, at least, have become as great curiosities as the Dandy Horse is now. The intending cyclist would do well, however, to read the chapter with care, and store up in his memory the various precepts laid down; and we can assure him that, with careful practice and attention to the little details enumerated, he should become a skilled rider Of course, it must be always remembered that all the reading in the world will never make a cyclist, but a novice requires guidance, and it must be a very dense and awkward novice who cannot gain some help from Lord Bury's advice and practical knowledge so lucidly expounded.

Chapters on racing, touring, and training follow, all full of valuable and interesting information. In reading over the directions for training, we cannot help contrasting them with the ideas in vogue some ten years ago. One going in for training nowadays has a comparatively happy time of it. Trainers are at length beginning to understand that the mind, as well as the body, needs training, and that in many cases successful mental training has as much to do in pulling off an event as skill and physical strength. The nine rules laid down for the guidance of racing cyclists embody, in a concentrated condition, all that should be remembered whilst actually riding, and might be correctly termed "extract of cycling instruction."

We are glad to see, in the chapter on "Dress," great stress is laid upon the necessity of woollen underclothing. Cycling has been blamed for many an illness when, in reality, the want of proper woollen garments next the skin has been the cause of all the trouble. In the matter of outside garments, the author favours very strongly the C.T.C. cloth. No doubt this material is excellent, but we fancy there are plenty of other makes nowadays (*e.g.*, the Cellular Clothing Company's fabrics) which are just as good, and, as far as pattern goes, perhaps more pleasing to some tastes.

There is one chapter especially devoted to the requirements of lady cyclists, and we should like to see ladies taking advantage of some of the advice therein contained. But lady cyclists, perhaps we might say all ladies, are rather—how shall we put it mildly—hard to convince, especially in the matter of shoe gear. A little practical riding experience, will perhaps do more in this way than either lecturing or pleading.

The constitution and rules of the C.T.C. and the N.C.U. are given in full, and the claims of both these clubs for the support which cyclists should give them are fully and fairly urged. The latter chapters are devoted to the mechanism of construction of various machines. To some this portion of the book will prove the most interesting, as the majority of cyclists are bound to become skilled to a certain extent in the practical mechanics of the machine. We know of a number of cyclists who have taken their machines to pieces with the avowed intention of cleaning, but in reality to satisfy that innate curiosity which is common to mankind, and we must not forget womankind also.

We do not think that the machine has been improved in all cases by the process, and in two or three we have known the attempt to put it together again altogether fail. However, it goes to prove our theory that cyclists have something of the amateur mechanic in them, and, therefore, the chapter on "Construction" will be interesting to the majority of cyclist readers.

The mysterious terms, "gearing up," "level," or "down," are fully explained and illustrated with simple diagrams, which must make the matter clear to all.

The speed-gearing is also explained. The authors evidently fancy that known as the crypto-dynamic. Our own view of the matter is that it is rather too complicated, and liable to get out of order at an awkward moment. The speed-gear is a useful adjunct to a roadster cycle, especially when in town; but the simpler its nature the better, for we can always get a village smith to patch up a broken chain, mend a handle-bar, but when it comes to crypto-dynamic gear gone wrong, all that the smith is capable of is to look at it, scratch his head, and look at you with a puzzled expression.

The whole book is well got up, and the illustrations are excellent. Altogether, the work is a valuable addition to cycling literature and to the Badminton Library, of which it forms a volume, and we commend its careful perusal to all cyclists who take a real interest in the subject.

How to Keep Healthy.—Don't worry. "Seek peace and pursue it." Be cheerful. "A light heart lives long." "Work like a man, but don't be worked to death." Never despair. "Lost hope is a fatal disease." Spend less nervous energy each day than you make. Don't hurry. "Too swift arrives as tardy as too slow." Sleep and rest abundantly. Sleep is nature's benediction. Avoid passion and excitement. A moment's passion may be fatal. Associate with healthy people. Health is contagious as well as disease. Don't overeat. Don't starve. Let your moderation be known to all men. Court the fresh air day and night. "Oh, if you knew what was in the air!"

IMPORTANT ANNOUNCEMENT.

BONUSES TO SUBSCRIBERS TO "HEALTH."

HEALTH, as our readers are aware, may be obtained of all Booksellers and Newsagents, and at the Railway Bookstalls, on the day of publication. It may also be ordered from the PUBLISHER, 2, Paternoster-square, London, E.C., who will send the journal, post free, for a year, on receipt of postal orders for 10s. 10d.

As many of our readers who live in remote districts prefer to obtain HEALTH from the Publisher direct, and as we are desirous of increasing the already large number of subscribers who give us a yearly order for the journal, we offer the following FREE GIFTS and BONUSES to all who subscribe to HEALTH for one year or longer:—

(1.) To each Subscriber who remits 10s. 10d. to the Publisher, entitling him (or her) to receive one copy of HEALTH, post free, for one year, we shall present a copy of Dr. Andrew Wilson's work, entitled "A Manual of Health Science" (Longmans & Co.), value 2s. 6d.

(2.) To each subscriber who remits 21s. 8d., entitling him or her to receive two copies of HEALTH weekly, post free, for one year (or one copy for two years), we will present Dr. Richardson's "Ministry of Health" (Chatto & Windus), value 6s. The copies of HEALTH so ordered may be posted to separate addresses.

(3.) To each person who subscribes 32s. 6d., for three copies of HEALTH, post free, weekly, for one year, we will present the volume by Dr. Richardson mentioned above, and also the handsome, illustrated book entitled, "Studies in Life and Sense," by Dr. Andrew Wilson (Chatto & Windus), value 6s.—being a free gift of the total value of 12s.

The bonus last mentioned will also be presented to anyone who succeeds in obtaining three yearly subscribers to HEALTH, and who remits to the Publisher the sum of 32s. 6d., together with the names and addresses of the persons to whom the copies are to be posted each week.

As the literary gifts above-mentioned constitute books containing solid and reliable information regarding health and other matters of popular scientific interest, it will be seen that the above scheme, while intended to increase our already large circulation, also offers distinct advantages to new subscribers who guarantee by their subscriptions a year's support to this journal. All communications regarding subscriptions and other purely business details connected with HEALTH should be addressed directly to the PUBLISHER, 2, Paternoster-square, London, E.C., and *not to the Editor*.

MAGAZINES OF THE MONTH.—*Belgravia*, as usual, is strong in fiction this month, and, in addition to its serials, contains interesting stories which cannot fail to wile away the tedium of a railway journey. "Lord Dunciman's Dilemma" is probably the best of the short tales. *The Gentleman's Magazine* has a most varied programme, among the articles in which those on "Gustave Flaubert" and "Some Curiosities of English Dictionaries" will be read with interest. *Babyhood* for August is a bright and instructive number, while *Life Lore*, now in its second number, promises well as an instructive and popular magazine of natural history. *Public Health*, edited by Mr. Wynter Blyth, appeals successfully to the medical officers of health as an official organ full of suggestive information.

Our Letter-Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 2, PATERNOSTER-SQUARE, LONDON, E.C. *Those intended for the Publishing Office to be sent to* MR. A. P. WATT, THE PUBLISHER, *at the same address.*

RULES FOR CORRESPONDENTS.

OWING to the mass of letters which reaches us each week, we respectfully direct the attention of Correspondents, desiring replies in the LETTER-BOX DEPARTMENT of HEALTH, to the following rules:—

1. All questions are answered free of charge in the columns of HEALTH.
2. All letters must be legibly addressed to "The Editor of HEALTH, 2, Paternoster-square, London, E.C.," *and to no other address.*
3. Questions to which answers are desired by post, are so replied to solely at the Editor's discretion. If no answer is sent by post, the query will be replied to in the "Letter-Box" columns of HEALTH. A stamped addressed envelope must accompany all queries to which a private reply is desired.
4. Addresses of physicians and surgeons will, as heretofore, be forwarded FREE to Correspondents on their enclosing a stamped addressed envelope for reply.

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. Correspondents are requested to write on one side of the paper only, and to make their inquiries as brief as may be consistent with clearness.

6. From the necessity of sending HEALTH to press early in the week, no Correspondent can be replied to in the "Letter-Box" columns in the same week in which the inquiry is received. Replies crushed out of any issue will be found in the succeeding number.

No Post Cards must be used in sending queries. Violation of this rule deprives the sender of the privilege of a reply.

QUERIES AND ANSWERS.

REPLIES: GENERAL, SANITARY, AND MEDICAL.

[Readers of HEALTH will kindly note that when back numbers of the journal are desired, the letters containing such requests and stamps for the numbers should be addressed to the PUBLISHER of HEALTH, 2, Paternoster-square, London, E.C., and *not to the Editor.*]

EGISTA.—What you complain of is not a sign of disease, but a sign of health. Avoid constipation, and drink Vichy Water occasionally, and, above all, keep your mind from dwelling on your fancied disease, or you will speedily fall into the hands of quacks.

JOHN CHURCH.—We advise you simply to wear a suspensory bandage and to bathe the parts night and morning with cold water to which a little Hazeline has been added. If the affection troubles you very much, consult a surgeon.

G. D.—Take a teaspoonful of the Syrup of the Hypophosphites, twice daily, after your meals, in a wineglass of water.

PLUTO.—You will consult your best interests, we think, by perusing the pamphlet, "A Lecture to Young Men" (post free for 1s. 1d. from Mr. Renshaw, 356, Strand, London, W.C. 2nd Edition), and by attending carefully to the tonic and dietetic rules therein prescribed. In cases like yours, there is nothing specially wrong, save lowness of tone.

NEAP.—One of the best drinks of non-alcoholic nature is Bingley's Ginger Ale. Address Mr. Bingley, chemist, Northampton, for details. It is pure, wholesome, and eminently tasteful. Try, also, the Montserrat Lime Juice Cordial.

ATHENS.—You suffer from eczema. Wash the affected parts with Bayley's Spermaceti Soap only, till you are well, and apply the following paste night and morning: Resorcin, one drachm; lanoline, vaseline, zinc oxide, and powdered starch, of each, two drachms. Mix, to form a paste. Live simply but generously.

A. BARBER.—In a case like yours, the main details to be followed out for your cure consist in extremely moderate and careful living, in guarding against all sources of mental excitement and worry, and in taking bromide of potash in twenty-grain doses, dissolved in water, twice daily. If these measures fail to diminish the attacks, let us know.

BRISTO.—Avoid chills, and take the following: Chloride of ammonium, two drachms; spirits of chloroform, one drachm; simple syrup, three drachms; water, to make up six ounces. A tablespoonful to be taken in water every four hours.

G. M.—That which you complain of is a perfectly natural result of your mental feelings overcoming and directing your physical organization. There is nothing wrong whatever. It is a natural consequence of your existing feelings. Simply take plenty of out-door exercise, a cold sponge bath each morning, and divert your thoughts from the subject.

DAVID CARR.—Nothing will stop your growth which will leave your health uninjured. You had better leave nature alone, and let your growth and nutrition proceed in a normal fashion.

SOLDIER.—Read the pamphlet, "A Lecture to Young Men" (post free, 1s. 1d., from Mr. Renshaw, 356, Strand, London, W.C.), and study carefully what is therein said about the preservation of health. The pamphlet will show you that what you regard as a sign of disease is really one of health. Steer clear of quacks, who flourish on cases like yours.

ETOILE.—Try a lotion composed of one part Friar's Balsam and nine parts rose-water. This is a harmless skin-application. A teaspoonful of Scott's Pure Cod Oil Emulsion with Hypophosphites after food may aid you.

JOHN CARFRAE.—Your ailment arises from your not resting for a time after your meals. You must contrive to obtain such rest by early rising, and allow an hour to elapse after breakfast before you go to your work. Try Dahl's Cakes regularly night and morning (see advt. in our pages).

SICK FROM DRINKING PARIS WATER.

MR. R. W. WOODRUFF, of 33, Glatney Esplanade, St. Petersport, Guernsey, writes:—"In 1879, by drinking the water in Paris, my blood was poisoned. I was taken sick there and had very hard work to reach Guernsey; when I did, I went right to bed and sent for the doctor, who, on seeing me, said I had rheumatic gout, and that it was caused by my drinking the Paris water. After I got to bed it was three weeks before I could raise my head from the pillow. In 1880 I was blind and helpless. In 1882 I was helpless for six weeks; I had it every year from 1879 to 1886, and was a great sufferer. Nearly all this time I was under doctors. The latter part of 1886 I began to take "Warner's SAFE Cure,' and am still taking it, since which I have had no rheumatic gout and have not had to call in the doctor. I am enjoying better health than I have done for years, and am sixty-nine years of age."

The remedy which cured Mr. Woodruff can be procured of all chemists, at 4s. 6d. per bottle, or of H. H. Warner & Co., 86, Clerkenwell-road, London, E.C.

BITTERN.—You may benefit from taking less farinaceous and more animal food, in the form of Brand's Beef Essence, &c. Try Vichy Water as a corrective to the other symptom you name, which may arise from an acid state of the secretions.

M. B.—Wash the feet frequently with Bayley's Soap and tepid water, and dust Woolley's Sanitary Rose Powder inside your socks thereafter. Look carefully also to the state of your boots and stockings, and wear roomy shoes.

Z. B. H. PATON.—You do not suffer from any disease at all, and only quacks will tell you so. Read the pamphlet, "A Lecture to Young Men" (post free for 1s. 1d. from Mr. Renshaw, 356, Strand, London, W.C.), and you will find full information given you in its pages.

BRADFORD.—Avoid exposure to the sun, and also see that you do not get heated and then chilled. Apply to your skin a little Lanoline Cold Cream at night, and wash with Bayley's Spermaceti Soap (17, Cockspur-street, Pall-mall, London, S.W.). Internally, take fifteen drops Fer Bravais after your meals, in water, thrice daily.

A NEW KENSINGTON READER.—1. Washing your head daily promotes dandriff, and causes that ailment. Wash it once a week only with Bayley's Spermaceti Soap, and avoid all hard brushes and small combs. Rub a little glycerine of borax into the roots of the hair at night. 2. What you name does not necessarily indicate that there is any stricture at all. We advise you to keep your mind easy, and, so long as there is neither pain nor trouble, let things alone. We are assuming that, as your letter indicates, you are in good health. If at any time you are troubled by actual symptoms, then consult a surgeon. The simple operation of which you are so afraid causes no pain whatever.

J. S.—Apply to Messrs. Burroughs, Wellcome & Co. (who are the makers), Snow-hill-buildings, London, E.C. Your druggist should be able to procure the medicine for you. It should, however, be used, at first, at any rate, under a physician's direction.

G. W. N. H.—Yours is a case in which we should expect to find relief from taking at night, for some time, one or two of the Tabloids of Cascara (made by Burroughs, Wellcome & Co., Snow Hill-buildings, London, E.C., and to be had of your druggist). These tabloids will tone up what is deficient in your digestive action, and enable your food, wisely ordered, to effect a cure. For the rest, take Van Houten's Cocoa to breakfast, and continue Scott's Midlothian Oat Flour. For lunch, try Henderson's Digestive Biscuits, with a little fruit and milk to which soda-water can be added if necessary. As regards dinner, simply vary your diet as much as possible: vegetable soups, white boiled fish, and a limited quantity of meat may suit you; milk puddings made with Tritola (Marshall's) and fruit-puddings should also be tried. In cases like yours, a cold or tepid sponge bath each morning with abdominal massage often acts in an admirable manner. Plenty of out-door exercise will aid you. Why not try cycling? If not bettered, write again.

E. C. S.—A quack, undoubtedly. You require no drugs whatever. Bathe the affected parts with cold water (to which a little Hazeline has been added) night and morning, and wear a suspensory bandage, which you can procure of any respectable

surgical instrument maker or druggist. For the rest, you must keep an easy mind. Follow out the directions given in the pamphlet regarding diet and avoidance of constipation, and you will get quite well. Above all, steer clear of quacks.

MRS. E. T.—Read the articles "How to Get Thin or Fat," to be had on application to the Publisher of HEALTH, 2, Paternoster-square, London, E.C. You should avoid starches and sugars, and take a fair allowance of meat with some fat. Ebstein's book (reviewed in HEALTH, No. 57) should also be read by you; or read the review of it.

DOUBTFUL.—Such water should at least be regarded with suspicion. Pure water should have no such air-bubbles as you describe, unless it is taken from some known mineral spring. Add a drop or two of Condy's Fluid to it, and if the purple colour vanishes away you may assume the water should at least be further examined by a chemist.

DOT.—For the flatulence, try five drops of Pure Terebene taken on a piece of sugar after your meals; and avoid excess of vegetables. Try also the powders recommended to "Atra" in No. 277, HEALTH, and eat a charcoal biscuit occasionally. Gargle the mouth after meals with a little of Burley's (George-street, Edinburgh) Pyrethrine Mouth Wash added to water. If these measures fail to relieve you after a fair trial, write us again.

ADOLPHUS.—What you complain of is simply due to cold and to a little irritation consequent upon your not attending strictly to cleanliness. Wash the parts daily night and morning, and apply thereafter a little Hazeline as a lotion for a few days. Take no alcohol, avoid constipation by the use of Dahl's Cakes, and rest as much as possible. After you are cured of the local symptoms, brace yourself up by taking a teaspoonful of Syrup of the Hypophosphites in a wineglass of water, twice daily, after your meals.

W. WILLIAMS. — Apply to Messrs. Burroughs, Wellcome & Co., Snow-hill-buildings, London, E.C. They are the makers of all Lanolin preparations.

ONYX.—Firstly, let the food be very light. Give a cup of warm milk in the morning, before rising, and also milk and soda through the day when the sickness continues. Let the food be taken sparingly as to quantity at each time. Ask your druggist to procure some Ingluvin for you, and administer it as directed on the bottle. Attend strictly to the state of the digestion, and guard against constipation by the use of the Cascara Cordial and diet as recommended to "Jim" in the last number of HEALTH.

NIGHTBIRD.—Excessive perspiration of the hands is usually associated with a want of tone in the system generally. We advise you to use Bayley's Soap and tepid water for the hands, and internally to take fifteen drops Fer Bravais, after your meals, thrice daily. Use Woolley's Powder after washing.

CHARLES M.—Touch the wart with a little of the tincture of perchloride of iron, morning and night, and see that you wash the parts regularly night and morning.

FIFTH STREET.—Read the articles published in HEALTH on "How to Get Thin or Fat" (to be had from the Publisher), and peruse also Ebstein's book on the treatment of corpulence. For review and full notice of this work, see HEALTH, No. 57.

AXIAL. — Send us stamped addressed envelope, and we will be glad to forward the address of a London specialist who removes superfluous hairs by means of electricity. The operation is painless, and is the only certain method of removing hairs.

MARIUS.—Your best course is to procure Dr. Joll's book on "Nursery Hygiene," or Miss Jex Blake's "Manual of Infancy" (Macmillan), or Dr. Weatherley's "Young Wife's Own Book" (Griffith & Farran), and study what is said therein about the feeding of infants.

PETER HAY.—Wash the irritated parts night and morning with Bayley's Soap and tepid water: thereafter, dust Woolley's Sanitary Rose Powder on the parts. Avoid scratching, and look to the state of your clothes, so as to ensure that no irritation exists. Internally, for a few days, take twenty drops Cascara Cordial, or a Cascara Tabloid, in water, an hour before breakfast.

LEADER.—Why not consult the physician, who would be competent to advise in such a case? He is entitled to be consulted by you as a mere matter of courtesy, and if you will be advised by us, you will take his opinion.

ST. AIDAN'S.—Try the effect of taking a lead and opium pill once or twice daily, when your symptoms trouble you; or twenty drops Collis Browne's Chlorodyne, every four hours, in water, may assist your cure. Avoid all vegetables and fruits, and let your food be simple, and consist of strong soups, milk, and puddings.

THICKHEADED VICTIM.—1. We cannot find his name in the list of practitioners. 2. Yes; read the pamphlet recommended to "Pluto" in the present number, and you will find full details therein given for treatment, &c. The ailment you name is mostly an invention of quacks.

EPAMINONDAS.—What you complain of is merely a sympathetic ailment, clearly arising from indigestion. You must rest after food regularly, and when your symptoms trouble you take five drops of Pure Terebene on a piece of sugar. Avoid all unnecessary excitement, of course, and let your food be light, avoiding pastry, salt meats, and cheese. By all means take a holiday-rest, but try a seaside resort by way of bracing up your system. It is probable that fifteen drops Fer Bravais, taken in water, between your meals, may also do you good. Write again, if not cured.

ANXIOUS.—Such short hairs only represent a thwarted structure, and are due to the general state of your hair-growth. We advise you to have the hair kept very short for a time, to wash it once a week with Bayley's Spermaceti Soap (17, Cockspur-street, Pall-mall, London, S.W.), and to use for a time regularly each morning the lotion recommended to "Otto" in last week's HEALTH. Let us hear how this treatment aids you.

C. W.—Simply take plenty of out-door exercise, and exert a little healthy mental indifference to your so-called trouble. There is nothing really wrong with you. A cold sponge bath each morning will aid you. To dinner, only take a little good stout or Bokŏl as likely to benefit you.

TREMANS.—The first you name in your letter is thoroughly genuine, and is well worth the extra expense. One might be quite sufficient for your case. We advise you also to note the advice given to "C. W." above. All that is said to that correspondent applies to your case. It is brooding over your fancied troubles which really forms the root and origin of your symptoms.

OMEGA.—1. Dr. Pavy's recipe for beef-tea is as follows:—Mince a pound of lean beef finely, and pour upon it into a jar one pint of cold water. Stir, and allow the mixture to stand for an hour. Then place the jar in a saucepan of water, and set the pan over a stove or gas-fire, and allow the water to boil gently for an hour. Remove the jar and pour its contents over a strainer. The beef-tea which runs through contains a fine sediment, to be drunk with the liquid, after being flavoured with salt. 2. Yes; but only after the milk cools. 3. Probably it does.

D. B. X.—1. Give Dahl's Cakes a fair trial. They are a simple and palatable cure for constipation. 2. About the age of fourteen or fifteen.

E. P. O.—1. Note review of book on Cycling in the present number. The writer therein speaks of the Cellular Clothing Co.'s fabrics as eminently suitable for cycling, and we can personally endorse the reviewer's views. 2. See advice regarding Dahl's Cakes given to preceding correspondent.

BIMBI.—Twyford's "Unitas" Closet is that we recommend you to obtain. It is the perfection of a health appliance. If your architect recommended you a pan-closet, it is clear he is far behind in sanitary knowledge.

E. BURTON.—Yes; the Cellular Clothing Co.'s material can be had in various thicknesses adapted for the changing seasons of the year. For your yachting trip you will find the fabrics of suitable nature. Try the caps made by this firm. For list of agents, see advertisement in our pages.

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